Remarks

Priority claim

Applicant asks the Examiner to look again at this objection since paragraphs 6 and 7 of the office action do not appear to apply to this application. A proper claim for priority has been made in the official declaration and a certified copy of the priority document has been submitted.

Response to arguments

The Examiner's detailed response is noted and gratefully received.

However, it appears that the Examiner has taken a hindsight view of Dravida. As explained in the introduction to Dravida, in the early 1990s when Dravida was filed and issued, overall bandwidth in the network was severely limited. Dravida is simply concerned with conserving bandwidth in the whole network in order to provide sufficient bandwidth for traffic to travel through the network. The present application as explicitly recited in the independent claims, however, is concerned with providing a specified bandwidth and guaranteed quality of service for a path. This is an entirely different problem to that addressed by Dravida since in general, there is now sufficient bandwidth in ARAPNET and its successor, the Internet, to allow data to pass through the network and the new problem (addressed by the present invention) is how to provide particular levels of quality for particular paths rather than the "best efforts" techniques which are all that were envisaged at the time Dravida was filed.

With this context in mind, Applicant makes the following comments in relation to the Examiner's arguments.

It is noted that the Examiner has sought to define the term topology as used in Figure 21, block 2101 of Dravida. However, this is unnecessary since Dravida already defines the term. At column 8, lines 58-60, "network topology information" is defined as "the identity of nodes that neighbour the current node . . .". This is consistent with the teaching of Dravida which is concerned with providing alternative routes when routes become congested i.e.

2

completely full (as distinct from provisioning paths with particular quality characteristics). Dravida provides a technique (see abstract and column 3, lines 35 onwards) which ensures that alternative routes may be provided in congestion situations while minimizing use of the scarce resource of bandwidth by providing only local decision making using local tables stored in each node (see column 4, line 57).

Thus Dravida does not store a network model in terms of the invention as explicitly recited in the independent claims. Furthermore the suggestion that to make this model separate from the network is obvious (as suggested by the Examiner) is a direct reversal of the teaching of Dravida which is concerned with local network decisions only and local network models (in order to conserve bandwidth which at the time of Dravida was thought better utilized transmitting data across the network rather than being utilized for route provisioning as proposed by the present invention).

The Examiner's comments of section 10 are not fully understood. The Examiner appears to be confusing quality of service with guaranteed bandwidth. These are well understood to mean different things and quality of service may for example mean latency and/or jitter and does not usually mean bandwidth. There is no disclosure in Dravida of a specified bandwidth or of a guaranteed quality of service. These concepts simply weren't important at the time of Dravida in the context of a connectionless communications network since at the time efforts were directed at network stability and resilience i.e. the need to get the data to its destination without considering what sort of quality of service and specified bandwidth might be available.

Accordingly, it is respectfully submitted that Dravida et al does not disclose the provisioning of a path with "a specified bandwidth and a guaranteed quality of service . . . over that path", it does not describe a network capable of supporting differentiated service provision (which has a special meaning – see Internet RFCs 2474 and 2475 which define the diffserv standard).

It does not disclose specifying a bandwidth and guaranteed quality of service to be provided over the path, it does not disclose accessing a model of the network which is separate from the network, it does not disclose assessing the amount of available bandwidth over the path

3

using the model and accordingly does not disclose most of the features of independent
claims 1, 17 and 26.

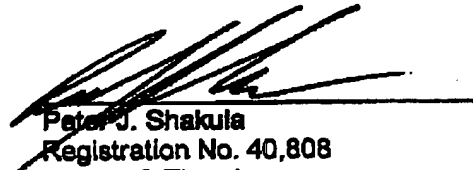## Claim Rejections 35 USC § 103

In view of the comments above, since most of the features of the independent claims are
lacking from Dravida and the Examiner's repeated rejections in sections 12-48 do not
address these omissions, accordingly the combinations of prior art made by the Examiner
fail to show all the claimed features of the independent claims. The obviousness objection is
therefore respectfully traversed.

Similarly, the rejection of the dependent claims is respectfully traversed since these claims
are non-obvious at least by virtue of their dependencies.

Applicant recognizes that office action has been made final but requests that this response
be fully entered and considered by the Examiner. No new amendments are being made and
all the issues raised by the Examiner have been considered.

November 17, 2003

Respectfully submitted,

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4